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UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/680,681	10/07/2003	Ravi Kuchibhotla	CS23736RL	5437

20280	7590	12/30/2005	

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EXAMINER
MEHRPOUR, NAGHMEH

ART UNIT	PAPER NUMBER
2686	

DATE MAILED: 12/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on *8/29/05*.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-30* is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-30* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a) ☐ All   b) ☐ Some *   c) ☐ None of:

        1. ☐ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____.

        3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)   4) ☐ Interview Summary (PTO-413)
                                                    Paper No(s)/Mail Date. _____ .
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)   5) ☐ Notice of Informal Patent Application (PTO-152)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)   6) ☐ Other: _____ .
     Paper No(s)/Mail Date _____ .

DETAILED ACTION

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

2.   Claims 1-30, are rejected under 35 U.S.C. 103(a) as being unpatentable over

Keutmann et al. (US Patent Number 2004/0072578 A1) in view of Muhonen (US Patent

Number 2005/0181788 A1).

Regarding claims 1, 16, Keutmann teaches a method of operating a user device in a

network, comprising:

receiving a registration accept message associated with a core network through

the network, the registration accept message including a rule set, the rule set

associated with a core network serving the user device through the network,

storing the rule set in the user device, receiving a broadcast message from the radio

access network, the broadcast message including core network access information;

converting the network access information using the stored rule set to determine core

network access information (page 5 sections 0070-0071, claim 11);

determining a desired behavior for the user device based on the core network

access information (page 4 section 0059). Keutmann does not specifically mention that

the method is for operating a shared network. However Muhonen teaches a method is

for operating a shared network (0006, 0042-0044). Therefore, it would have been

obvious to ordinary skill in the art at the time the invention was made to combine the

above teaching of Muhonen with Keutman, in order to provide an improved mobile

network for allocating a roaming number of each operator sharing the mobile network at

a predetermined frequency.

Regarding claim 2, Keutmann teaches a method wherein the signaling message is a

registration accept message (page 2 section 0022, page 4 section 0057).

Regarding claim 3, Keutmann teaches a method wherein the signaling message is a

location update accept message (page 4 section 0057).

Regarding claim 4, Keutmann teaches a method wherein the signaling message is a

location update reject message (page 2 section 0024, page 3 section 0048).

Regarding claim 5, Keutmann teaches a method wherein the signaling message is a

registration reject message (page 3 section 0048).

Regarding claim 6, Keutmann teaches a method wherein the access information is a

location identity (page 2 section 0023).

Regarding claim 7, Keutmann teaches a method wherein the location identity is a location area, and wherein the user device uses the rule to translate the location area received into a mapped location area for the associated core network (page 2 section 0015, 0026, page 4 0060).

Regarding claim 8, Keutmann teaches a method where the location identity is the network identity (page 2 section 0025).

Regarding claim 9, Keutmann teaches a method where the location identity is an SSD (page 2 section 0023).

Regarding claims 10, Keutmann teaches a method wherein the location identity is a routing area identity, and wherein the user device uses the rule to translate the routing area received into mapped routing area for the associated core network (page 3 section 0053).

Regarding claims 11, Keutmann teaches a method wherein the behavior is transmitting the mapped location area in a routing area update request (page 3 section 0053).

Regarding claims 12, Keutmann teaches a method wherein the behavior is transmitting the mapped routing area in a routing area update request (page 3 section 0053).

Regarding claim 13, Keutmann teaches a method of claim 1, wherein the behavior is transmitting a location area update request for a circuit switched network (page 4 section 0056).

Regarding claim 14, Keutmann teaches a method wherein the behavior is transmitting a routing area update request for a packet switched network (page 3 section 0053).

Regarding claim 15, a method wherein the behavior is refraining from transmitting a location identity update request (page 4 section 0059).

Regarding claim 17, Keutmann teaches a method wherein the desired behavior is transmitting a location update request (page 4 section 0059).

Regarding claim 18, Keutmann teaches a method wherein the desired behavior is transmitting a location update request to a mobile station controller (page 4 section 0059).

Regarding claim 19, Keutmann teaches a method wherein the desired behavior is refraining from transmitting a location update request (page 2 sections 0022, 0023).

Regarding claim 20, Keutmann teaches a method further comprising receiving a location area identity which is different from a stored location area identity which is

stored in the user device, and refraining from transmitting a location update request

(page 2 section 0015).

Regarding claim 21, Keutmann teaches a user device, comprising:

a transceiver to transmit and receive signals, the transmitter receiving a broadcast

message from the radio access network, the broadcast message including a broadcast

location identity associated with an access network; and

a controller coupled to the transceiver: the controller mapping the network access

information in the broadcast message to a serving core network location identity using a

stored rule set to determine mapped location identity, and detecting a cell reselection

event when the mapped location identity indicates that a core network cell reselection is

detected (page 4 sections 0059, 0060), . Keutmann does not specifically mention that

the method is for operating a shared network. However Muhonen teaches a method is

for operating a shared network (0006, 0042-0044). Therefore, it would have been

obvious to ordinary skill in the art at the time the invention was made to combine the

above teaching of Muhonen with Keutman, in order to provide an improved mobile

network for allocating a roaming number of each operator sharing the mobile network at

a predetermined frequency.

Regarding claim 22, Keutmann teaches a method of operating a network element to

support a network comprising:

detecting a call establishment event for a target user device;

determining a current location identity of the target user device (0059);

mapping the current location identity of the target device to a network location identities

using a rule set associated with the target user device and

the core network (page 4 section 0060); and

communicating a message according to the mapped access network location dentities

(Page 2 section 0026). Keutmann does not specifically mention that the method is for

operating a shared network. However Muhonen teaches a method is for operating a

shared network (page 1 section 0006, page 2 sections 0042-0044). Therefore, it would

have been obvious to ordinary skill in the art at the time the invention was made to

combine the above teaching of Muhonen with Keutman, in order to provide an improved

mobile network for allocating a roaming number of each operator sharing the mobile

network at a predetermined frequency.

Regarding claim 23, Keutmann teaches a method wherein the step of communicating

the message, further comprises the step of sending a request to the radio network

controller to transmit the message to the mapped location identities (page 2 section

0026, page 4 section 0059).

Regarding claim 24, Keutmann teaches a method further including the step in a shared

access network of determining whether a location update accept communication needs

to be sent to the user device (page 2 sections 002, 0023).

Regarding claim 25, Keutmann teaches a method wherein the shared access network is a public land mobile network (page 4 section 005).

Regarding claim 26, Keutmann teaches a method of claim 22, wherein the shared access network is local area network (page 3 section 0053).

Regarding claim 27, Keutmann teaches a method wherein the network element is in a core network, and further including the step transmitting a request to the local area network to broadcast a paging message on the mapped access network identity areas (page 4 section 0060).

Regarding claim 28, Keutmann teaches a method wherein the network element is in the access network, and wherein the step of communicating includes the step in the access network of sending a page from the network according to the mapped access network location identities in response to a request from the core network including the core network location identities (page 4 section 0060). However Muhonen teaches a method is for operating a shared network (0006, 0042-0044). Therefore, it would have been obvious to ordinary skill in the art at the time the invention was made to combine the above teaching of Muhonen with Keutman, in order to provide an improved mobile network for allocating a roaming number of each operator sharing the mobile network at a predetermined frequency.

Regarding claim 29, Keutmann teaches a method wherein the core network signaling

message is received from a core network element and the rule set is attached to the

core network signaling message (page 4 sections 0046, 0060, page 5 section 0072).

Regarding claim 30, Keutmann teaches a network element, comprising:

a communication interface between a controller and a system including an access

network map core networks; and

a controller coupled to the interface, the controller mapping the network

access information to serving core network location identities using a stored rule set to

determine mapped location identities and communicating the mapped core network

location identities to at least one of the access network and the core network

(page 4 sections 0059, 0060). Keutmann does not specifically mention that the method

is for operating a shared network. However Muhonen teaches a method is for operating

a shared network (page 1 0006, page 3 sections 0042-0044). Therefore, it would have

been obvious to ordinary skill in the art at the time the invention was made to combine

the above teaching of Muhonen with Keutman, in order to provide an improved mobile

network for allocating a roaming number of each operator sharing the mobile network at

a predetermined frequency.

Conclusion

3.   **Any responses to this action should be mailed to:**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Naghmeh Mehrpour whose telephone number is 703-308-7159. The examiner can normally be reached on 8:00- 6:00.
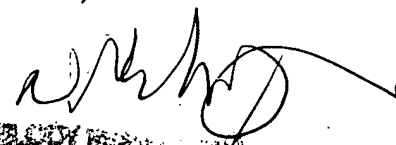
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold be reached (703) 305-4379.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NM

December 22, 2005